



CLEARING PERMIT

Granted under section 51E of the Environmental Protection Act 1986

Purpose Permit number:	CPS 4402/1
Permit Holder:	Scott and Leanne Margaret Johnstone
Duration of Permit:	15 August 2011 – 15 August 2019

The Permit Holder is authorised to clear native vegetation subject to the following conditions of this Permit.

PART I – CLEARING AUTHORISED

1. Purpose for which clearing may be done

Clearing up to 4.6 hectares for the purpose of thinning Karri (*Eucalyptus diversicolor*) and Marri (*Corymbia calophylla*) forest and up to 0.4 hectares for the purpose of weed control.

2. Land on which clearing is to be done

Lot 9677 on Deposited Plan 203050

3. Area of Clearing

- The Permit Holder must not clear more than 4.6 hectares of native vegetation for the purpose of thinning within the areas cross-hatched yellow on attached Plan 4402/1.
- The Permit Holder must not clear more than 0.4 hectares of native vegetation for the purpose of weed control within the areas solid filled yellow on attached Plan 4402/1.

5. Application

This Permit allows the Permit Holder to authorise persons, including employees, contractors and agents of the Permit Holder, to clear native vegetation for the purposes of this Permit subject to compliance with the conditions of this Permit and approval from the Permit Holder.

6. Type of clearing authorised

To the extent authorised under condition 3 of this Permit, the Permit Holder may undertake the following activities within the area cross-hatched yellow on Plan 4402/1:

- The Permit Holder may undertake the following activities:
 - clearing and burning of *understorey*;
 - thinning* of Karri (*Eucalyptus diversicolor*) and Marri (*Corymbia calophylla*) trees; and
 - culling* and burning of unsaleable trees.
- The Permit Holder shall not clear any native vegetation after 15 August 2015. This being four years from the date this Permit becomes valid.

7. Compliance with Assessment Sequence and Management Procedures

Prior to clearing any native vegetation under conditions 1, 2 and 3 of this Permit, the Permit Holder must comply with the Assessment Sequence and the Management Procedures set out in Part II of this Permit.

PART II – ASSESSMENT SEQUENCE AND MANAGEMENT PROCEDURES

8. Avoid, minimise etc clearing

In determining the amount of native vegetation to be cleared authorised under this Permit, the Permit Holder must have regard to the following principles, set out in order of preference:

- (a) avoid the clearing of native vegetation;
- (b) minimise the amount of native vegetation to be cleared; and
- (c) reduce the impact of clearing on any environmental value.

9. Dieback and weed control

(a) When undertaking any clearing or other activity authorised under this Permit, the Permit Holder must take the following steps to minimise the risk of the introduction and spread of *weeds* and *dieback*:

- (i) clean earth-moving machinery of soil and vegetation prior to entering and leaving the area to be cleared;
- (ii) shall only move soils in *dry conditions*;
- (iii) ensure that no *dieback* or *weed*-affected soil, *mulch*, *fill* or other material is brought into the area to be cleared; and
- (iv) restrict the movement of machines and other vehicles to the limits of the areas to be cleared.

(b) At least once in each 12 month period for the term of this Permit, the Permit Holder must remove or kill any *weeds* growing within areas cleared under this Permit.

10. Watercourse management

The Permit Holder shall not clear native vegetation within 30 metres of the *riparian vegetation* of any *watercourse* or *wetland*.

11. Vegetation management

(a) Prior to undertaking any clearing authorised under this Permit, an *environmental specialist* must determine the species composition, structure and density of the *understorey* of areas proposed to be *thinned*.

(b) The Permit Holder must retain a minimum of 2 *habitat trees* in each hectare authorised under this Permit.

(c) A minimum retention rate of 18m²/ha *basal area* is required within the area of clearing authorised under this Permit.

(d) Prior to undertaking any clearing authorised under this Permit, the Permit Holder must exclude all *stock* from the areas subject to *thinning* activities.

(e) Within two years of 15 August 2015., the Permit Holder must:

- (i) engage an *environmental specialist* to determine the species composition, structure and density of the *understorey* of areas subject to *thinning*; and
- (ii) where, in the opinion of an *environmental specialist*, there is evidence that *understorey* will not recover and develop towards its pre-clearing composition, structure and density determined under condition 11(a), the Permit Holder must undertake *remedial action* at an *optimal time* within the next 12 months to ensure re-establishment of *understorey* prior to expiry of this Permit.

PART III - RECORD KEEPING AND REPORTING

12. Records must be kept

The Permit Holder must maintain the following records for activities done pursuant to this Permit:

(a) In relation to the clearing of native vegetation authorised under this Permit:

- (i) the species composition, structure and density of the cleared area;
- (ii) the location where the clearing occurred, recorded using a Global Positioning System (GPS) unit set to Geocentric Datum Australia 1994 (GDA94), expressing the geographical coordinates in Eastings and Northings;
- (iii) the date that the area was cleared; and
- (iv) the size of the area cleared (in hectares).

(b) In relation to vegetation management pursuant to condition 10 of this Permit:

- (i) prior to clearing native vegetation authorised under this Permit, the species composition, structure and density of *understorey*;
- (ii) the species and number per hectare of *habitat trees* retained;

- (iii) the location of *habitat trees* retained, recorded using a Global Positioning System (GPS) unit set to Geocentric Datum Australia 1994 (GDA94), expressing the geographical coordinates in Eastings and Northings;
- (iv) monitoring undertaken to ensure that the specified minimum *basal area* is retained;
- (v) photographs of the *understorey* taken at one year, two years and three years after completing clearing authorised under this Permit; and
- (vi) a detailed description of the nature and extent of any *remedial actions* undertaken.

13. Reporting

- (a) The Permit Holder must provide to the CEO on or before 30 June of each year, a written report:
 - (i) of records required under condition 12 of this Permit; and
 - (ii) concerning activities done by the Permit Holder under this Permit between 1 January and 31 December of the preceding year.
- (b) Prior to 15 May 2019, the Permit Holder must provide to the CEO a written report of records required under condition 12 of this Permit where these records have not already been provided under condition 13(a) of this Permit.

DEFINITIONS

The following meanings are given to terms used in this Permit:

basal area is the method of expression of tree cover density in an area where the total area of tree trunk, whose diameter is measured at 1.5m above the ground, is expressed as square metres per hectares of land area;

culled/ing means the selective removal and/or killing of unsaleable trees for *thinning*, using methods including notching, felling or machine pushing;

dieback means the effect of *Phytophthora* species on native vegetation;

dry conditions means when soils (not dust) do not freely adhere to rubber tyres, tracks, vehicle chassis or wheel arches;

direct seeding means a method of re-establishing vegetation through the establishment of a seed bed and the introduction of seeds of the desired plant species;

environmental specialist means a person who is engaged by the Permit Holder for the purpose of providing environmental advice, who holds a tertiary qualification in environmental science or equivalent, and has experience relevant to the type of environmental advice that an environmental specialist is required to provide under this Permit;

fill means material used to increase the ground level, or fill a hollow;

habitat tree(s) means trees that have a diameter, at average adult human chest height, of greater than 70cm, healthy but with dead limbs and broken crowns that are likely to contain hollows and roosts suitable for native fauna, or where these are not present then healthy but with the potential to contain hollows and roosts;

mulch means the use of organic matter, wood chips or rocks to slow the movement of water across the soil surface and to reduce evaporation;

optimal time means the period from April to June for undertaking *direct seeding*, and the period from May to July for undertaking *planting*;

regenerate/ed/ion means re-establishment of vegetation from in situ seed banks and propagating material (such as lignotubers, bulbs, rhizomes) contained either within the topsoil or seed-bearing *mulch*;

rehabilitate/ed/ion means actively managing an area containing native vegetation in order to improve the ecological function of that area;

remedial action/s means for the purpose of this Permit, any activity that is required to ensure successful re-establishment of *understorey* to its pre-clearing composition, structure and density, and may include a combination of soil treatments and *revegetation*.

revegetate/ed/ion means the re-establishment of a cover of *local provenance* native vegetation in an area using methods such as natural *regeneration*, *direct seeding* and/or *planting*, so that the species composition, structure and density is similar to pre-clearing vegetation types in that area;

riparian vegetation has the meaning given to it in Regulation 3 of the Environmental Protection (Clearing of Native Vegetation) Regulations 2004;

stock means the horses, cattle, sheep, pigs and other non-indigenous grazing animals kept or bred on a property;

thinned/ing describes a silvicultural activity to promote the growth of selected trees by removing competing trees;

understorey means, for the purpose of this Permit, all native vegetation that does not include trees to be *culled* or subject to harvest.

watercourse has the meaning given to it in section 3 of the *Rights in Water and Irrigation Act 1914*;

weed/s means a species listed in Appendix 3 of the "Environmental Weed Strategy" published by the Department of Conservation and Land Management (1999), and plants declared under section 37 of the *Agriculture and Related Resources Protection Act 1976*.

wetland/s means an area of seasonally, intermittently or permanently waterlogged or inundated land, whether natural or otherwise, and includes a lake, swamp, marsh, spring, dampland, tidal flat or estuary.

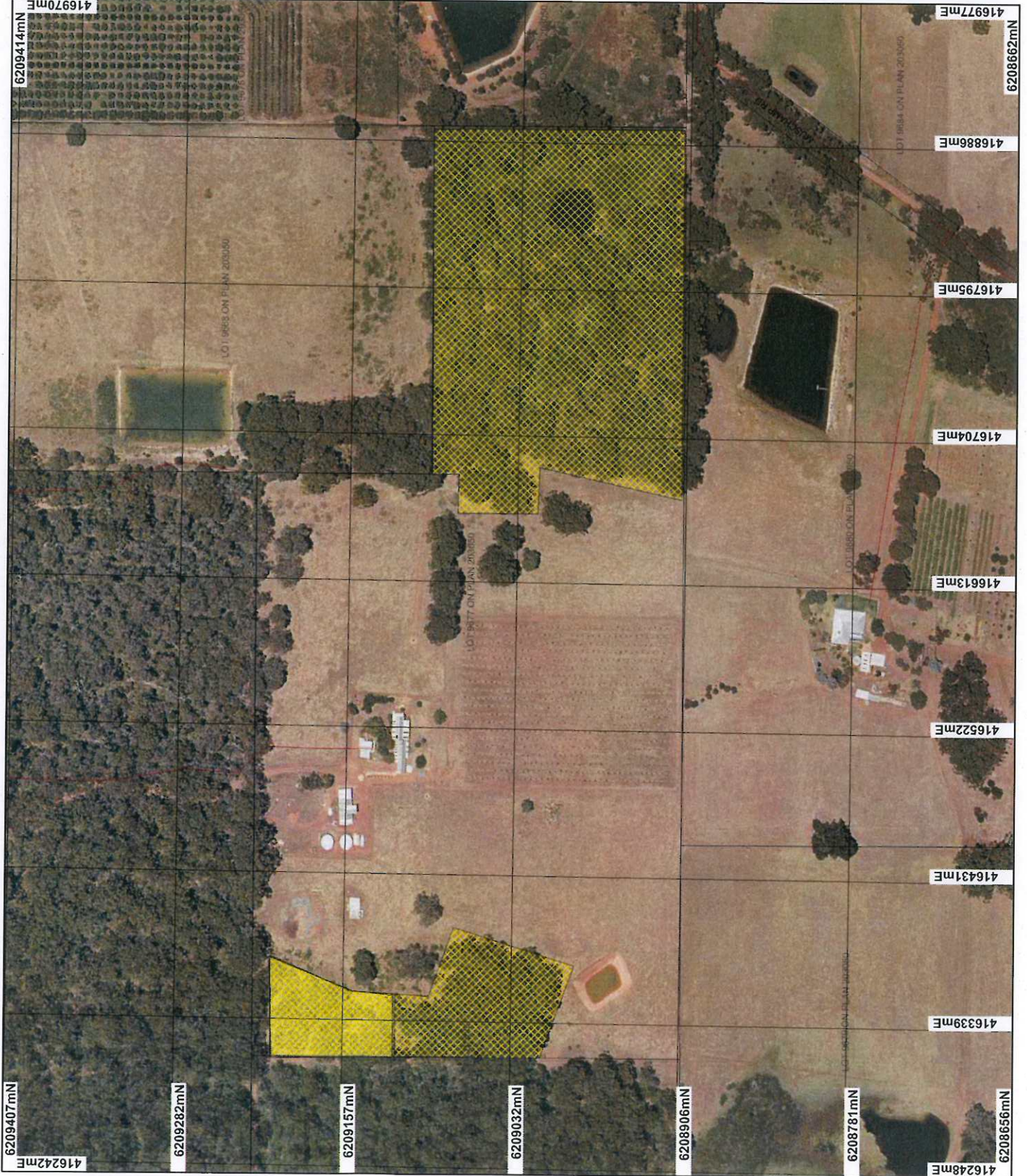


Kelly Faulkner
MANAGER
NATIVE VEGETATION CONSERVATION BRANCH

*Officer delegated under Section 20
of the Environmental Protection Act 1986*

21 July 2011

Plan 4402/1



LEGEND

Clearing Instruments

- Areas Approved to Clear
- Road Centrelines
- Cadaastre
- Local Government Authorities

Manjimup 50cm Orthomosaic - Landgate
2007

* Project Data is denoted by asterisk.
This data has not been quality assured.
Please contact map author for details.



Scale 1:3557

(Approximate when reproduced at A4)

Geocentric Datum Australia 1994

Note: As-built data in this map have not been
checked. This may result in geometric
discrepancies or measurement inaccuracies.

[Signature]
K Faulkner Date 24/7/11

Officer with delegated authority under Section 20 of
the Environmental Protection Act 1986
Information derived from this map should be
confirmed with the data custodian acknowledged
by the agency acronym in the legend.



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Environment and Conservation
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1. Application details

1.1. Permit application details

Permit application No.: 4402/1
Permit type: Purpose Permit

1.2. Proponent details

Proponent's name: Scott and Leanne Margaret Johnstone

1.3. Property details

Property: LOT 9677 ON PLAN 203050 (House No. 411 SPRINGALL DEANMILL 6258)
LOT 9677 ON PLAN 203050 (House No. 411 SPRINGALL DEANMILL 6258)

Local Government Area: Shire of Manjimup
Colloquial name: Nelson Location 9677, Springall Rd

1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
5		Mechanical Removal	Timber Harvesting

1.5. Decision on application

Decision on Permit Application: Grant
Decision Date: 21 July 2011

2. Site Information

2.1. Existing environment and information

2.1.1. Description of the native vegetation under application

Vegetation Description	Clearing Description	Vegetation Condition	Comment
<p>The vegetation under application is mapped as:</p> <p>Beard vegetation type Nornalup 1144: tall forest-karri and marri (Shepherd, 2009).</p> <p>Mattiske vegetation complexes:</p> <p>Crowea (CRb): Tall open forest of <i>Corymbia calophylla</i>-<i>Eucalyptus diversicolor</i> on upper slopes with <i>Allocasuarina decussata</i>-<i>Banksia grandis</i> on upper slopes in hyperhumid and perhumid zones (Mattiske and Havel, 1998).</p> <p>Yanmah (YN1): Mixture of tall open forest of <i>Eucalyptus diversicolor</i> and tall open forest of <i>Corymbia calophylla</i>-<i>Eucalyptus patens</i>-<i>Eucalyptus marginata</i> subsp. <i>marginata</i> over <i>Agonis flexuosa</i> and <i>Agonis juniperina</i> on valleys in perhumid and humid zones (Mattiske and Havel, 1998).</p>	<p>This clearing proposal comprises two areas within Lot 9677, Deanmill; an eastern 4ha area and a western 1ha area. The application is to thin approximately 4.6ha of mature Karri trees for the purpose of silviculture, and clear approximately 0.4ha of native vegetation for construction of farm infrastructure and a shed. The northern 0.4ha of the western area is proposed to be cleared for the construction of the farm buildings.</p> <p>The 4.6ha area under application for silviculture can be described as karri-marri (<i>Eucalyptus diversicolor</i>-<i>Corymbia calophylla</i>) closed forest, with the vegetation being mainly karri regrowth from 70-80 years ago with a well represented understorey (Bending, 2011) and a middle storey comprises predominantly <i>Trymalium floribundum</i>. The forest covers an average basal area of 35-38m² per hectare with dominant stems approximately 45m in height (Bending, 2011). The vegetation is considered to be in very good (Keighery, 1994) condition. A minimum basal area of 18m² per hectare will be maintained (Bending, 2011).</p> <p>The 0.4ha area under application to be cleared consists of scattered karri and marri trees with an abundant weed infestation (mainly blackberry sp) and almost a complete absence of native understorey remaining (Bending, 2011). The understorey comprises introduced weeds and grasses and bracken fern (DEC 2011). The vegetation is adjacent to existing sheds and other farm infrastructure.</p> <p>There is evidence of disturbance within the clearing areas from both past and current grazing by stock and encroachment of weeds and grasses from adjacent paddocks (DEC, 2011).</p>	<p>Good: Structure significantly altered by multiple disturbance; retains basic structure/ability to regenerate (Keighery 1994)</p>	<p>The description and condition of the native vegetation under application was sourced from a DEC site visit undertaken on 20 December 2010 (DEC 2010) and a local consultant's Native Forest Management Plan (Bending, 2011).</p>
		<p>Very Good: Vegetation structure altered; obvious signs of disturbance (Keighery 1994)</p>	

3. Assessment of application against clearing principles

(a) Native vegetation should not be cleared if it comprises a high level of biological diversity.

Comments

Proposal may be at variance to this Principle

This clearing application comprises two areas within Lot 9677, Deanmill; an eastern 4ha area and a western 1ha area. The application is to thin approximately 4.6ha of mature Karri trees for the purpose of silviculture, and clear approximately 0.4ha of native vegetation for weed control.

The 4.6ha area under application for silviculture can be described as karri-marri (*Eucalyptus diversicolor*-*Corymbia calophylla*) closed forest, with the vegetation being mainly karri regrowth. The forest covers an average basal area of 35-38m² per hectare with dominant stems approximately 45m in height (Bending, 2011). The vegetation is considered to be in very good (Keighery, 1994) condition, with evidence of thinning approximately 70-80 years ago (DEC, 2011). The middle storey comprises predominantly *Trymalium floribundum*. A minimum basal area of 18m² per hectare will be maintained (Bending, 2011).

The 0.4ha area under application to be cleared consists of scattered karri and marri trees with an abundant weed infestation (mainly blackberry species) and almost a complete absence of native understorey remaining (Bending, 2011) comprising introduced weeds and grasses and bracken fern (DEC 2010). The vegetation is adjacent to existing sheds and other farm infrastructure and is considered to be in good (Keighery, 1994) condition.

During a DEC site inspection (DEC, 2010) of the area under application no tree hollows were observed however as the whole area was not surveyed, there is a high likelihood that some older trees within the area under application do contain hollows suitable for black cockatoos and other native fauna that utilise hollows.

There are no known records of priority ecological communities within a 10km radius.

There are 5 priority flora species recorded within a 10km radius that occur on the same soil type as the area under application therefore may occur within the karri-marri forest of the eastern 4ha application area (the western 1ha area has almost a complete absence of native understorey).

Caladenia harringtoniae and *Caladenia christineae* occurs in sandy loam soils, winter-wet flats, the margins of lakes, creek lines and granite outcrops (WA Herbarium 1998-). Suitable habitat for these rare orchid species may exist along the creekline that traverses the eastern 4ha area under application.

A 30 meter vegetated buffer from the creekline would ensure adequate protection of riparian vegetation and the potential rare flora habitat.

Given the potential for rare flora occurring within the application area the clearing as proposed may be at variance to this Principle.

Methodology

DEC (2007-)
DEC (2010)
Bending (2011)
Keighery (1994)

(b) Native vegetation should not be cleared if it comprises the whole or a part of, or is necessary for the maintenance of, a significant habitat for fauna indigenous to Western Australia.

Comments

Proposal is not likely to be at variance to this Principle

144 records of 11 fauna species listed as rare or likely to become extinct under the Wildlife Conservation Act 1950 are within a 10km radius of the application area.

These include the Commonwealth protected Forest Red-tailed black cockatoo (*Calyptorhynchus banksii naso*), Baudin's black cockatoo (*Calyptorhynchus baudinii*) and Carnaby's black cockatoo (*Calyptorhynchus latirostris*) that have been recorded within the local area (10km radius).

The eastern 4.6ha area under application for silviculture thinning can be described as closed karri-marri forest, with the vegetation being mainly karri regrowth and is considered to be in very good (Keighery, 1994) condition (DEC 2010). There are several larger groups of mature and senescent trees present which remain form the original forest (Bending, 2011). Therefore there is a high likelihood that some trees within the eastern area under application would contain hollows suitable for black cockatoos and other conservation significant fauna that utilise hollows, such as the Chuditch/ Western Quoll, Brush-tailed Phascogale and Muir's Corella. A DEC site visit ascertained that habitat trees (over 700mm DBH) are currently available to retain and numerous larger, mature trees should be retained with the potential to develop into habitat trees (DEC, 2010).

As the majority of the proposal (4.6ha) is for thinning rather than broad scale clearing (0.4ha), it is considered the trees retained after thinning would provide suitable habitat for black cockatoos in the local area as habitat trees will be retained at a rate of approximately five stems per hectare (Bending, 2011). The local area is well vegetated, with approximately 85% native vegetation remaining in the Shire of Manjimup, including large areas

of state forest. These areas are likely to be providing fauna habitat of greater local significance than the vegetation under application. Therefore, the clearing as proposed is considered not likely to be at variance to this Principle.

Methodology Bending (2011)
DEC (2010)
DEC(2007-)
Keighery (1994)

(c) Native vegetation should not be cleared if it includes, or is necessary for the continued existence of, rare flora.

Comments Proposal may be at variance to this Principle

There are six records of three rare flora species within the local area (10km radius). These are the orchids *Caladenia harringtoniae* and *Caladenia christineae*, and the shrub *Andersonia annelsii*.

All three species occur on the same soil type as the vegetation under application (yellow mottled soils with some hard acidic red mottled soils and brown earths, containing ironstone gravels (Northcote et al 1960-8).

Caladenia harringtoniae and *Caladenia christineae* occurs in sandy loam soils, winter-wet flats, the margins of lakes, creek lines and granite outcrops (WA Herbarium 1998-). Suitable habitat for these rare orchid species may exist along the creekline that traverses the eastern 4ha area under application.

Therefore, the clearing as proposed is considered may be at variance to this Principle.

A 30 meter vegetated buffer from the creekline would ensure adequate protection of riparian vegetation and the potential rare flora habitat.

Methodology Northcote et al (1960-8)
WA Herbarium (1998-)

GIS Databases:
-SAC Bio Datasets (Accessed 21/6/2011)

(d) Native vegetation should not be cleared if it comprises the whole or a part of, or is necessary for the maintenance of a threatened ecological community.

Comments Proposal is not likely to be at variance to this Principle

There are no known records of Threatened Ecological Communities (TEC) within 10 km of the area under application. The closest TEC is 57km west. Given the distance, it is not considered likely that the vegetation under application comprises of, or is necessary for the maintenance of a TEC.

Methodology GIS Databases:
-SAC Bio Datasets (Accessed 21/6/2011)

(e) Native vegetation should not be cleared if it is significant as a remnant of native vegetation in an area that has been extensively cleared.

Comments Proposal is not likely to be at variance to this Principle

The vegetation under application is described as Beard vegetation association 1144, described as tall forest-karri and marri (Shepherd, 2009) of which there is 80% of pre-1750 extent remaining within the Warren bioregion (Shepherd, 2009). In addition, the vegetation is described as Mattiske vegetation complexes Crowea and Yanmah, of which there is 88% and 82% (Mattiske and Havel, 1998) of pre-1750 extent remaining within the State, respectively.

A large percentage of vegetation remains in the Shire of Manjimup (85%) and 91% of the mapped Beard vegetation association is protected within conservation reserves vested with DEC (91%).

Given the extent of vegetation remaining in the Shire and bioregion in similar or better condition to the vegetation under application, the high representation of the vegetation types and the local area is not extensively cleared, the vegetation under application is not considered to be significant as a remnant of native vegetation.

Therefore, the clearing as proposed is considered not likely to be at variance to this Principle.

Methodology Mattiske and Havel (1998)
Shepherd (2009)

GIS Databases:

- Pre-European Vegetation
- Mattiske Vegetation Complexes
- NLWRA, Current Extent of Native Vegetation
- Interim Biogeographic Regionalisation for Australia (IBRA), Version 6.1

(f) Native vegetation should not be cleared if it is growing in, or in association with, an environment associated with a watercourse or wetland.

Comments Proposal is at variance to this Principle

A minor perennial watercourse (unnamed) runs through the eastern application area from NW to SE corner. A DEC site inspection riparian vegetation associated with the creekline (DEC 2010). Therefore, the clearing as proposed is at variance with this Principle.

It is noted however, that the riparian vegetation adjacent to the dam in the south eastern corner of the property is intended to remain unharvested (Bending, 2011).

The Department of Water does not support the clearing of vegetation within 30m of this watercourse (DoW, 2011). A 30m vegetated buffer from creek lines would ensure adequate protection of riparian vegetation.

Methodology Bending (2011)
 DEC (2010)
 Department of Water (2011)
 GIS Databases:
 -Hydrography, linear
 -Rivers

(g) Native vegetation should not be cleared if the clearing of the vegetation is likely to cause appreciable land degradation.

Comments Proposal is not likely to be at variance to this Principle

The areas under application and the surrounding area are mapped as soil type Tc6, which is described as a dissected lateritic plateau of hilly relief at moderate elevation with soils of yellow mottled soils with some hard acidic red mottled soils and brown earths, containing ironstone gravels (Northcote et al 1960-8).

The majority of the 5ha application (92%) is for silvicultural thinning and the proponent has committed to retaining a minimum basal area of 18 m²/ha (Bending, 2011). The proponent plans to commence the silviculture operations during dry soil conditions thus reducing the impact on soil values such as compaction and erosion, and coupled with machinery wash down prior to entry, will assist in reducing the potential to introduce dieback (*Phytophthora cinnamoni*) to the property (Bending, 2011).

The proponent also plans to fence the forest, post silviculture, to ensure stock are excluded from grazing and to facilitate regeneration, particularly of understorey species (Bending, 2011).

Given 4.6ha of the proposed clearing is for thinning and only 0.4ha of the proposal is for broad scale clearing, the proposal is not considered likely to cause appreciable land degradation.

Methodology Bending (2011)
 Northcote et al (1960-8)
 GIS Databases:
 -Soils, statewide

(h) Native vegetation should not be cleared if the clearing of the vegetation is likely to have an impact on the environmental values of any adjacent or nearby conservation area.

Comments Proposal is not likely to be at variance to this Principle

The closest conservation reserves are Jarnadup State Forest which is located approximately 300m southwest and Donnelly State Forest which is located approximately 500m west of the western area under application.

Given the distance from the proposed clearing and fragmentation of the local landscape it is considered unlikely that the clearing as proposed may impact on the environmental values of these nearby conservation areas.

Therefore, the clearing as proposed is unlikely to be at variance to this Principle.

Methodology GIS Databases:
 -DEC tenure

(i) Native vegetation should not be cleared if the clearing of the vegetation is likely to cause deterioration in the quality of surface or underground water.

Comments Proposal may be at variance to this Principle

A minor perennial watercourse (unnamed) runs through the eastern 4ha application area from the NW to SE corner and Lefroy Brook, a major perennial river, is located 150m west of the western 1ha application area.

The soils mapped within the area under application are described as hard acidic yellow mottled soils with some hard acidic red mottled soils and brown earths, all containing ironstone gravels (Northcote et al 1960-8). These soils are prone to water erosion, which may result in sedimentation and increased turbidity of the nearby watercourses.

Therefore, the clearing as proposed may be at variance with this Principle.

A 30 meter vegetated buffer from the creekline running through the eastern application area would ensure adequate protection of riparian vegetation and the associated creekline (DoW, 2011).

Methodology Department of Water (2011)
Northcote et al (1960-8)

GIS Databases:

- Country Areas Water Supply Act (Part IIA) Clearing Control Catchments
- Hydrography, linear
- Rivers
- Soils, statewide

(j) Native vegetation should not be cleared if clearing the vegetation is likely to cause, or exacerbate, the incidence or intensity of flooding.

Comments Proposal is not likely to be at variance to this Principle

An area mapped as 'subject to inundation' is located approximately 300m NE of the eastern area under application, in between Lefroy Brook and an earth dam. The areas under application are in a high rainfall area (1100mm per annum) of hilly relief.

Given the majority of the application is for silvicultural thinning and a minimum basal area of 18m² per hectare will be maintained (Bending, 2011), and the 0.4ha to be cleared consists of sparse native vegetation with abundant weed infestation (mainly blackberry), the proposal is not likely to cause or exacerbate the incidence or intensity of flooding.

Therefore, the clearing as proposed is not likely to be at variance to this Principle.

Methodology Bending (2011)

GIS Databases:

- Topographic contours, statewide
- Mean annual rainfall isohyets (1975- 2003)

Planning instrument, Native Title, Previous EPA decision or other matter.

Comments

Lot 9677 is freehold land, zoned rural under the local town planning scheme.

he Shire of Manjimup requests that the following footnote be included in any approval granted:

"The applicant is advised to confer with the Shire of Manjimup with respect to the need to comply as relevant with all requirements relating to its Town Planning Scheme, local laws and legislation relating to the movement of heavy vehicles and the repair of road damage resultant from the use of those heavy vehicles" (Shire of Manjimup , 2011).

The area under application falls within the Warren River Water Reserve (surface water) Zone D which is an area proclaimed under the Country Areas Water Supply Act 1947 (CAWS Act). The Department of Water (DoW) have advised that this catchment has been subject to CAWS Act native vegetation clearing controls since 1978 to prevent salinisation of water resources and clearing native vegetation within Zone D is subject to the retention of native vegetation on at least 10% of the holding area (DoW, 2011). DoW have no objection to the clearing of the western 0.4ha area however require a 30m buffer either side of the streamline within the proposed eastern 4.6ha silviculture thinning site. DoW has no objection to the proposed thinning outside this required buffer (Dow, 2011).

A DEC Commercial Producers Licence remains outstanding for this proposal.

The area is suitable to be thinned to a basal area of approximately 18 -20 meters and numerous mature trees

should be retained in the thinning with the potential to develop into larger habitat trees (DEC, 2011).

The applicant's consultant has advised of a retention rate of approximately 18- 22 square metres per hectare (Bending, 2011).

Vegetation management conditions would restore the understorey disturbed by the silviculture operations, retain mature trees and a set basal area for habitat and exclude stock to ensure the remaining vegetation can continue to function due to the disturbance and will recover in the future. These conditions are consistent with DEC Sustainable Forest Management (DEC, 2005).

Methodology

Bending (2011)
DEC (2005)
DEC (2011)
Department of Water (2011)
Shire of Manjimup (2011)

GIS databases:

- Cadastre
- Country Areas Water Supply Act (Part IIA) Clearing Control Catchments
- Town Planning Scheme Zones

4. References

- Bending, M (2011) Native Forest Management Plan for Lot 9677, Springall Road Manjimup, Rose and Bending Forest Services (DEC Ref A401325).
- DEC (2005) Silvicultural Practice in the Karri Forest. Department of Conservation and Land Management. SFM Guideline No.3
- DEC (2007 -) NatureMap: Mapping Western Australia's Biodiversity. Department of Environment and Conservation. URL: <http://naturemap.dec.wa.gov.au/>. Accessed 21/6/2011.
- DEC (2007 -) NatureMap: Mapping Western Australia's Biodiversity. Department of Environment and Conservation. URL: <http://naturemap.dec.wa.gov.au/>. Accessed xx/xx/xxxx
- DEC (2010) Site Inspection Report for Clearing Permit Application CPS 4402/1, Lot 9677 Springall Rd, Manjimup. Site inspection undertaken 20/10/2010. Department of Environment and Conservation, Western Australia (DEC REF A412044).
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5. Glossary

Term	Meaning
BCS	Biodiversity Coordination Section of DEC
CALM	Department of Conservation and Land Management (now BCS)
DAFWA	Department of Agriculture and Food
DEC	Department of Environment and Conservation
DEP	Department of Environmental Protection (now DEC)
DoE	Department of Environment
DoIR	Department of Industry and Resources
DRF	Declared Rare Flora
EPP	Environmental Protection Policy
GIS	Geographical Information System
ha	Hectare (10,000 square metres)
TEC	Threatened Ecological Community
WRC	Water and Rivers Commission (now DEC)